

Specification Amendments:

Please amend the specification on pages 1, 2, 3, and 4 as follows:

LINEAR AMPLIFIER AND SCHMITT TRIGGER USING AN ANALOGUE SWITCH

Cross-Reference to Related Applications

This application claims priority to PCT application PCT/GB2004/001851, filed April 28, 2004, which claimed priority to British patent application 0313189.3, filed June 7, 2003.

FIELD OF THE INVENTION

The present invention concerns a linear amplifier and a Schmitt trigger which make use of an analogue switch.

BACKGROUND OF THE INVENTION

Modern fluid extraction systems, for example hydrocarbon extraction wells, involve the installation of electronics downhole where the environmental temperature can typically be around 220E C. Therefore it is desirable to use electronic devices which can perform electronic functions at these temperatures. There are presently few integrated circuits which have been designed specifically to operate at such temperatures that are commercially available. However, wideband linear amplifiers and Schmitt triggers, both of which are important downhole components, are not yet commercially available which can operate satisfactorily at these temperatures.

SUMMARY

It is an object of the present invention to provide a linear amplifier and a Schmitt trigger which are suitable for use at high temperatures. This object is achieved by constructing the devices

using an analogue switch.